DONTAS 1-1

"Network Address Translation in the Global System for Mobile communications" Inventors: Kejitan Jockey, et al. – Express Mail EL 977170561 US – Dkt No. 13436.278 (Dontas 1-1)

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FIG. 1

```
┌──────────────────────┐              ┌──────────────────────┐
│  MOBILE STATION (MS) │   ⌇          │    BASE STATION      │
│  WITH MICRO BROWSER  │              │   SYSTEM (BBS)       │
└──────────────────────┘              └──────────────────────┘
         101                                   133

                                      ┌──────────────────────┐
                                      │      GSM MSC         │── 106D
                                      └──────────────────────┘

┌───────────────────────────────────────────────────────────────────┐
│ GSM IWF        100                                                  │
│                                                                     │
│  ┌─────────────────┐  ┌─────────────────┐  ┌─────────────────┐     │
│  │ IWF MANAGEMENT  │  │ PROTOCOL ENGINE PE│  │  MODEM POOL     │    │
│  │ SYSTEM (IMS)    │  │         116      │  │    (MP)         │     │
│  │ FOR OAM&P       │  │ ┌──────────────┐ │  │                 │     │
│  │     111         │  │ │ETHERNET PORT │ │  │      113        │     │
│  │                 │  │ │ASSIGNED PRIVATE│ │  │               │     │
│  │                 │  │ │IP ADDRESS AND│ │  │                 │     │
│  │                 │  │ │IP ADDRESS ON │ │  │                 │     │
│  │                 │  │ │CUSTOMER'S SUBNET│ │  │              │     │
│  │                 │  │ └──────────────┘ │  │                 │     │
│  └─────────────────┘  └─────────────────┘  └─────────────────┘     │
│         112                                                         │
│          IP             IP          114         IP                  │
│  ┌────────────────────────────────────────────────────────┐        │
│  │                 ETHERNET SWITCH                         │        │
│  └────────────────────────────────────────────────────────┘        │
└───────────────────────────────────────────────────────────────────┘
                              IP

                    ┌──────────────────────┐
                    │   L2TP NETWORK       │── 115
                    │   SERVER (LNS)       │
                    └──────────────────────┘
                              IP

                    ☁ INTRANET/INTERNET ☁  107
```

— — — — — INTERNAL IP TRAFFIC

━━━━━━━━ DIA IP CALL TRAFFIC

FIG. 2
PRIOR ART

DONTAS 1-1

"Network Address Translation in the Global System for Mobile communications" Inventors: Kejitan Jockey, et al. – Express Mail EL 977170561 US – Dkt No. 13436.278 (Dontas 1-1)
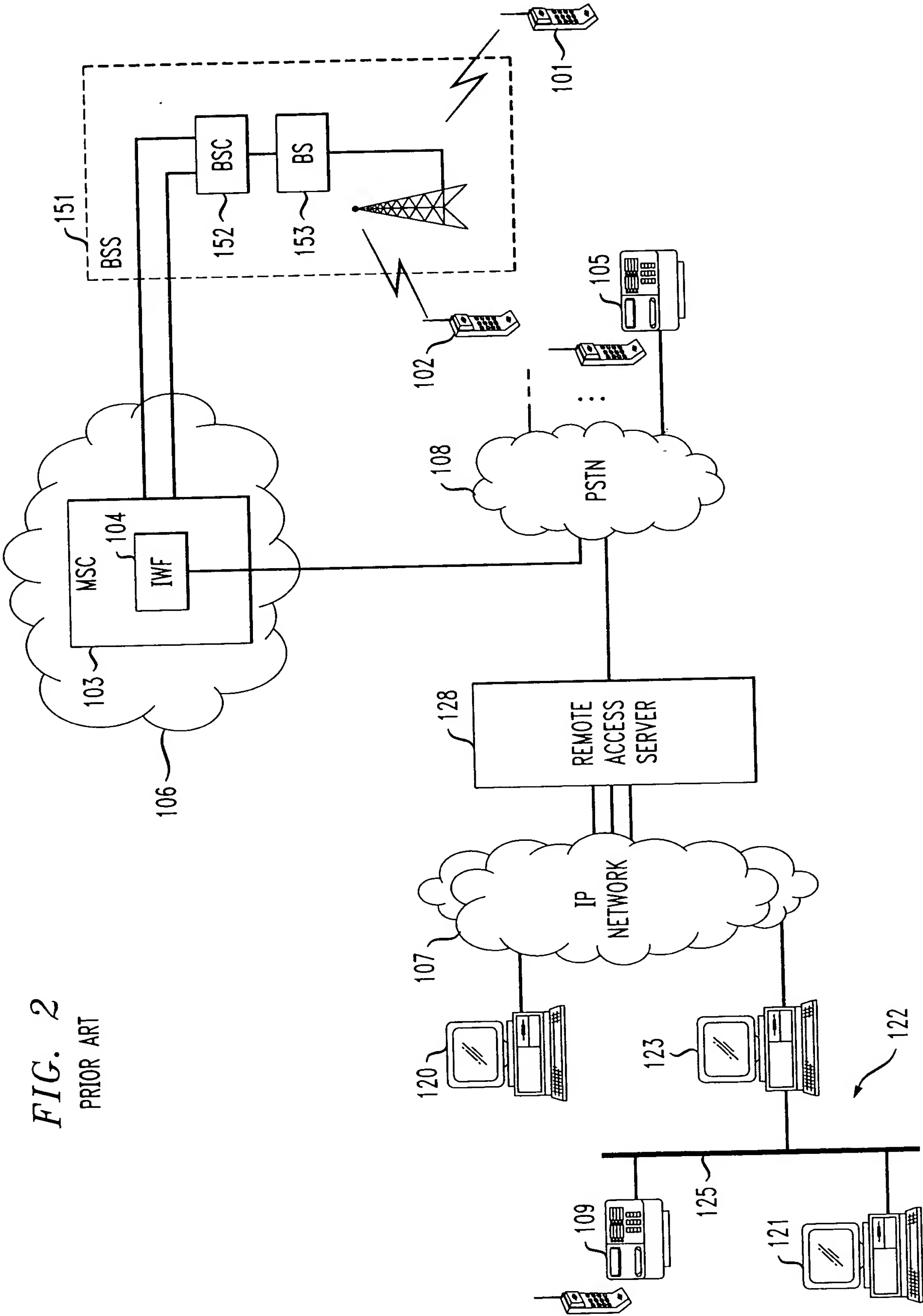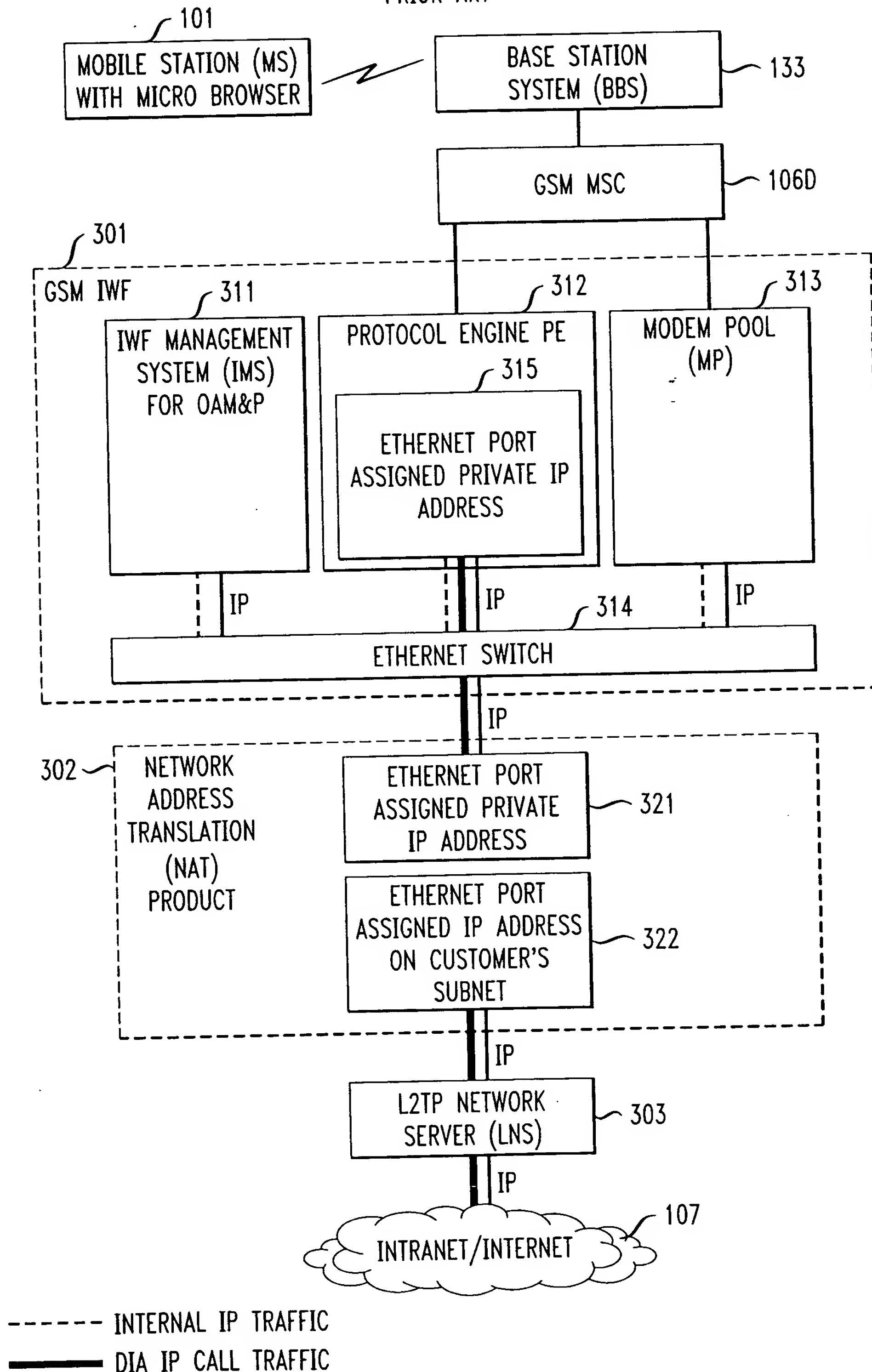
3/5

FIG. 3
PRIOR ART


```
┌─────────────────────┐              ┌──────────────────────┐
│   MOBILE STATION    │      101     │   BASE STATION       │  133
│ (MS) WITH MICRO     │              │   SYSTEM (BBS)       │
│    BROWSER          │              │                      │
└─────────────────────┘              └──────────────────────┘
                                              │
                                     ┌──────────────────────┐  106D
                                     │      GSM MSC         │
                                     └──────────────────────┘
```

301

GSM IWF   311   312   313

IWF MANAGEMENT SYSTEM (IMS) FOR OAM&P

PROTOCOL ENGINE PE   315

ETHERNET PORT ASSIGNED PRIVATE IP ADDRESS

MODEM POOL (MP)

IP   IP   314   IP

ETHERNET SWITCH

IP

302   NETWORK ADDRESS TRANSLATION (NAT) PRODUCT

ETHERNET PORT ASSIGNED PRIVATE IP ADDRESS   321

ETHERNET PORT ASSIGNED IP ADDRESS ON CUSTOMER'S SUBNET   322

IP

L2TP NETWORK SERVER (LNS)   303

IP

INTRANET/INTERNET   107

------ INTERNAL IP TRAFFIC

━━━━━ DIA IP CALL TRAFFIC

DONTAS 1-1

"Network Address Translation in the Global System for Mobile communications" Inventors: Kejitan Jockey, et al. – Express Mail EL 977170561 US – Dkt No. 13436.278 (Dontas 1-1)
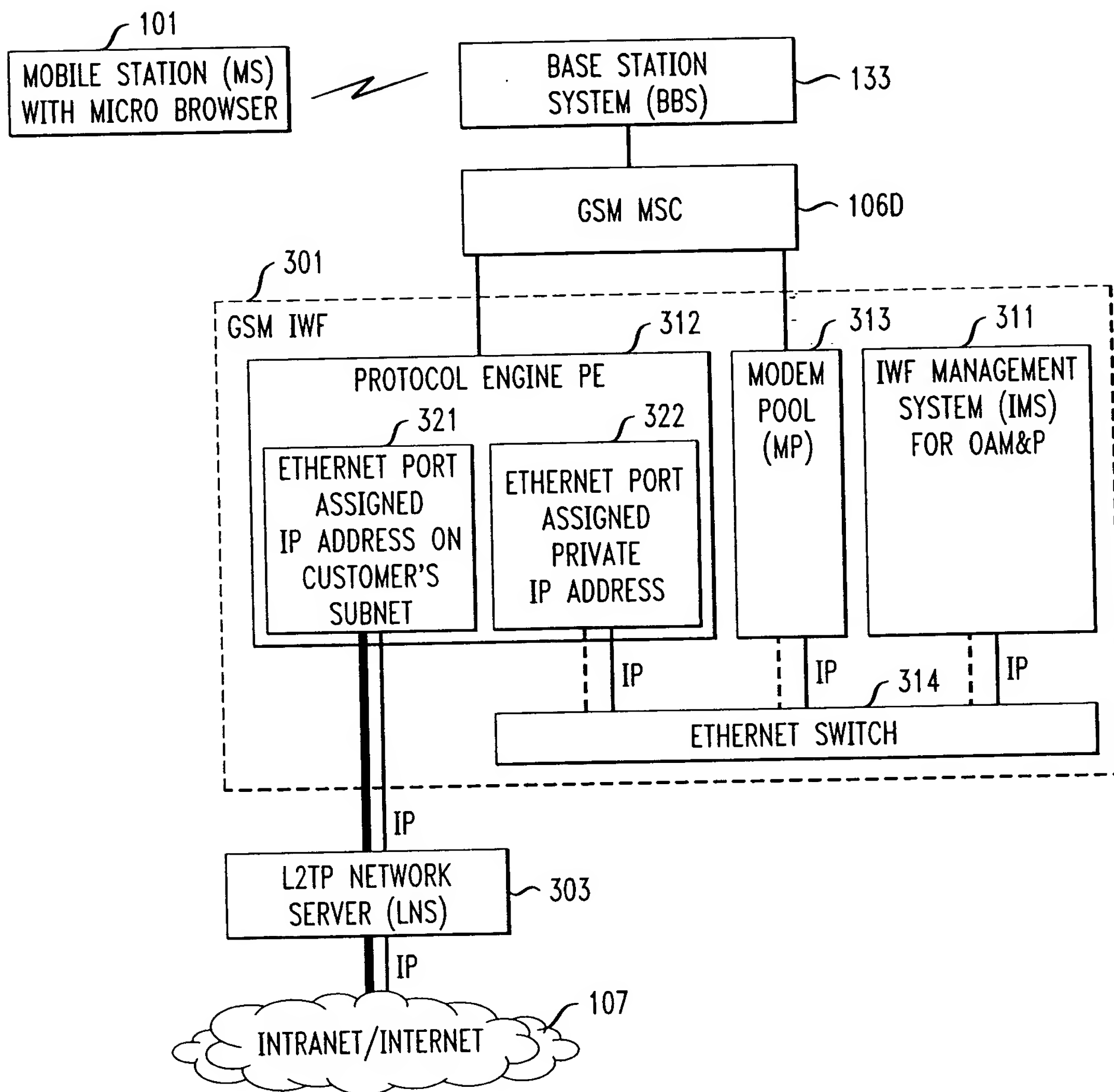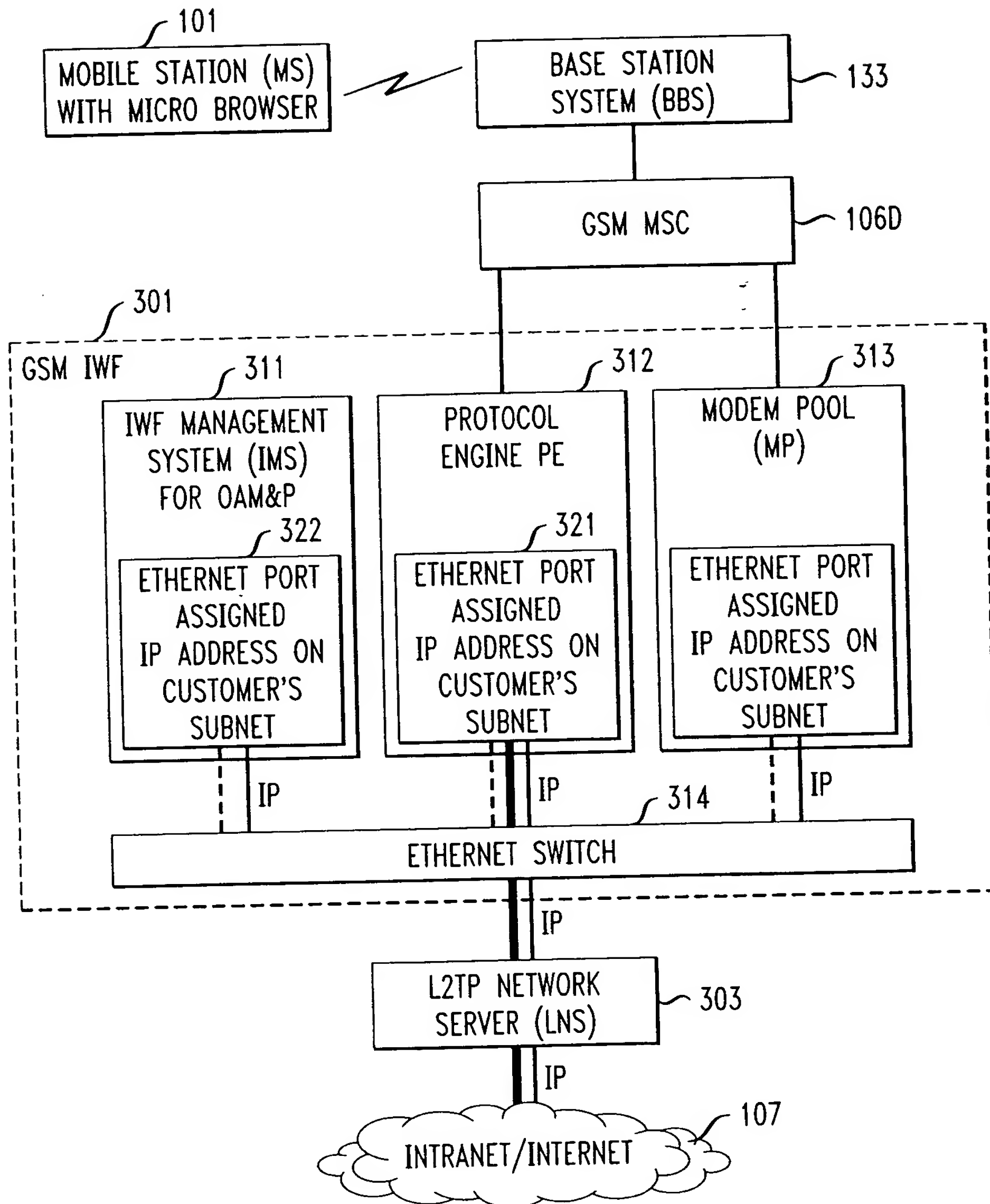
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FIG. 4
PRIOR ART

101
MOBILE STATION (MS) WITH MICRO BROWSER

133
BASE STATION SYSTEM (BBS)

106D
GSM MSC

301
GSM IWF

312
PROTOCOL ENGINE PE

321
ETHERNET PORT ASSIGNED IP ADDRESS ON CUSTOMER'S SUBNET

322
ETHERNET PORT ASSIGNED PRIVATE IP ADDRESS

313
MODEM POOL (MP)

311
IWF MANAGEMENT SYSTEM (IMS) FOR OAM&P

IP

IP

314
ETHERNET SWITCH

IP

IP

303
L2TP NETWORK SERVER (LNS)

IP

107
INTRANET/INTERNET

- - - - - INTERNAL IP TRAFFIC
━━━━ DIA IP CALL TRAFFIC

FIG. 5
PRIOR ART

——————— INTERNAL IP TRAFFIC

━━━━━━━ DIA IP CALL TRAFFIC